

## **NOTICE AND CALL OF MEETING**

### **LAS VEGAS VALLEY WATERSHED ADVISORY COMMITTEE**

Tuesday January 10, 2023 2:00 p.m.  
MEETING TO BE HELD VIRTUALLY

Join Microsoft Teams Meeting: **1-323-776-6758** / Conference ID: **297 002 519 014**

The Las Vegas Valley Watershed Advisory Committee makes reasonable efforts to assist and accommodate persons with physical disabilities who desire to attend the meeting. For assistance, please contact Keiba Crear at (702) 822-3388 at least 48 hours in advance of the meeting.

Visit our website at [www.snwa.com](http://www.snwa.com) for Las Vegas Valley Watershed Advisory Committee agenda postings, copies of supporting material and approved minutes. To receive meeting information, including supporting material, contact the Agenda Coordinator at (702) 258-3277 or [agendas@snwa.com](mailto:agendas@snwa.com).

This meeting will be held via remote technology only pursuant to NRS 241.023, as amended by assembly bill 253 of the 81<sup>st</sup> legislative session, effective May 31, 2021. There will be no physical location for the meeting. Members of the public may hear, observe and participate in the meeting via the meeting link or telephone number identified above. If a member of the public is interested in viewing this meeting online or providing public comment, please e-mail [jason.bailey@lvvwd.com](mailto:jason.bailey@lvvwd.com) no later than noon on January 10, 2023, to receive remote access.

Any Committee member may combine two or more agenda items for consideration, consider an item out of order, remove an item from the agenda or delay discussions relating to an item on the agenda at any time.

#### **COMMENTS BY THE GENERAL PUBLIC**

**NO ACTION MAY BE TAKEN:** This is a period devoted to comments by the general public pertaining to items on this agenda. If you wish to speak to the Committee about items within its jurisdiction, but not appearing on this agenda, you must wait until the "Comments by the General Public" period listed at the end of this agenda. Please limit your comments to three minutes or less. No action may be taken upon a matter not listed on the posted agenda.

#### **ITEM NO.**

1. *For Information Only:* Introductions
2. *For Possible Action:* Approve November 10, 2022 Meeting Minutes
3. *For Possible Action:* Select a Chair and Vice Chair for the Las Vegas Valley Watershed Advisory Committee
4. *For Information Only:* Receive an Informational Update on Items Related to the Las Vegas Valley Watershed Advisory Committee (LVVWAC) that may appear on Future Regular Board Meetings of LVVWAC Members' Appointing Agencies
5. *For Information Only:* Receive an Update on the Clark County Wetlands Park
6. *For Information Only:* Receive an Update on Regional Water Quality
7. *For Information Only:* Receive an Update from Members and Staff Regarding Water Resources, Stormwater, Wastewater and Water Quality, Including but Not Limited to Regulations, Permitting and Status of the Lower Las Vegas Wash
8. *For Possible Action:* Set Next Meeting Date and Propose Items for the Next Meeting's Agenda

#### **COMMENTS BY THE GENERAL PUBLIC**

**NO ACTION MAY BE TAKEN:** At this time, the Committee will hear general comments from the public on matters under the jurisdiction of the LVVWAC. Please limit your comments to three minutes or less.

Approved: DocuSigned by:  
  
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Priscilla Howell, Chair  
Las Vegas Valley Watershed Advisory Committee

**LAS VEGAS VALLEY WATERSHED ADVISORY COMMITTEE – JANUARY 10, 2023 – PAGE TWO**

**THIS MEETING HAS BEEN PROPERLY NOTICED AND POSTED IN THE FOLLOWING LOCATIONS:**

*City of Boulder City, City Hall*  
401 California Avenue  
Boulder City, NV 89005

*City of North Las Vegas, City Hall*  
2250 Las Vegas Boulevard North  
North Las Vegas, NV 89030

*City of Henderson, City Hall*  
240 Water Street  
Henderson, NV 89015

*Clark County Government Center*  
500 S. Grand Central Parkway  
Las Vegas, NV 89155

*Las Vegas Valley Water District*  
1001 S. Valley View Boulevard  
Las Vegas, NV 89153

*Southern Nevada Water Authority*  
100 City Parkway, Ste. 700  
Las Vegas, NV 89106

*Clark County Water Reclamation District*  
5857 E. Flamingo Road  
Las Vegas, NV 89122

*City of Las Vegas, City Hall*  
495 S. Main Street  
Las Vegas, NV 89101

## **LAS VEGAS VALLEY WATERSHED ADVISORY COMMITTEE**

Southern Nevada Water Authority  
100 N City Parkway, Las Vegas, NV 89106  
November 10, 2022  
1:00 p.m.

### **Members Present:**

Tom Brady, *City of North Las Vegas (CNLV)*  
Priscilla Howell, *City of Henderson (COH)*  
Zane Marshall, *Southern Nevada Water Authority (SNWA)*  
Tom Minwegen, *Clark County Water Reclamation District (CCWRD)*  
Steve Parrish, *Clark County Regional Flood Control District (CCRFCD)*  
Colby Pellegrino, *Las Vegas Valley Water District (LVVWD)*  
Randy Tarr, *Clark County (CC)*  
Charles Trushel, *City of Las Vegas (CLV)*

### **Also Present:**

Jason Bailey	Tim Parks
Keiba Crear	Ryan Pearson
Richard Donahue	Ron Portaro (TQR, facilitator)
Laura Dye	AJ Rodrigues
Jason Eckberg	John Solvie
Adrian Edwards	David Stoft
Dan Fischer	John Tennert
Dan Hernandez	Todd Tietjen
Oh-Sang Kwon	Andrew Trelease
Alexei Luganov	Debbie Van Dooremolen
Sherri McMahon	

### **1. Welcome/Call to Order**

Chair Priscilla Howell called the meeting to order at 1:05 p.m.

### **2. Public Comment**

Seeing no request for public comment, Priscilla moved forward with the meeting.

### **3. Introductions**

Attendees are listed above.

### **4. Approve April 19, 2022 and August 23, 2022 Meeting Minutes**

Motion to approve the minutes passed.

### **5. Approve Letter of Support to the State Environmental Commission for Petitions R115-22-Channels Tributary to the Las Vegas Wash and R116-22 Las Vegas Wash Site-Specific Selenium Criteria**

Steve Parrish provided background on the letter and stated that in 2019, the State Environmental Commission (Commission) gave the Nevada Division of Environmental Protection (NDEP) three years to develop a new site-specific criterion for selenium in the Las Vegas Wash (Wash). The CCRFCD requested funding assistance from the Las Vegas Valley Watershed Advisory

Committee (LVVWAC) to pay for a portion of the study. In addition, several grants were obtained to help with funding. The study has been completed and accepted by NDEP, and the results of the study will be presented to the Commission in December. This support letter encourages the Commission to approve the two petitions (*R115-22-Channels Tributary to Las Vegas Wash* and *R116-22 Las Vegas Wash Site-Specific Selenium Criteria*).

Steve made a motion to approve the letter and the motion passed unanimously.

**6. Facilitator-led Review of History of Las Vegas Valley Watershed Advisory Committee and Current Las Vegas Wash Long-Term Operating Plan**

Keiba Crear gave a presentation on the history of the LVVWAC. She began with a brief overview of the Wash and the formation of several committees related to it. She stated that in 1997, a water quality citizens advisory committee was formed and recommended the creation of a coordinated Wash committee, with SNWA as the lead agency. As a result, the Las Vegas Wash Coordination Committee (LVWCC) was formed in 1998 with nearly 30 stakeholders, and in 2000, the LVWCC published the Comprehensive Adaptive Management Plan (CAMP). In 2002, the Management Advisory Committee (MAC) was formed to provide local oversight and funding of Wash activities. She stated that in 2007, the MAC entered into a cooperative agreement and established the LVVWAC, which includes the eight entities that are still the current members today. Keiba gave an overview of the history of the funding allocations for Wash operations and reviewed the current funding structure that was approved by the LVVWAC in March 2020 as part of the Las Vegas Wash Long-Term Operating Plan (LTOP). She also highlighted some of the LVVWAC's accomplishments, which include construction of 21 erosion control structures, reduction of invasive tamarisk, revegetation with native plants, and the reduction of total suspended solids within the Wash. She concluded her presentation by highlighting the time and resources that have been invested in Wash efforts and discussing funding for special projects now that the LTOP is in place. The LTOP began in July 2022.

**7. Facilitator-led Discussion of Membership for Future Actions for Las Vegas Valley Watershed Advisory Committee**

Ron Portaro, with Total Quality Resources, facilitated a discussion about LVVWAC membership as it relates to future actions. He explained that he met with each LVVWAC member prior to this meeting to gather information, insights and opinions. The following ensued:

Tom Minwegen stated that in 2020, when discussions about moving from the Wash Capital Improvements Plan (CIP) to the LTOP increased, he felt that committee members were not open to change that would positively impact the watershed. Tom asked David Stoft to give a presentation on behalf of CCWRD to better highlight the utility's thoughts. David began by giving a brief overview of the purpose and intent of the LVVWAC, highlighting that the word "watershed" is comprehensive and includes both the tributaries and the Wash, along with flows and water quality. He also spoke about LVVWAC's membership, mentioning that the current membership aligns with the current stakeholders, except for Municipal Separate Storm Sewer Systems (MS4) and private industry, which are currently not included as members, and proposed that the MS4 entities, as those who oversee stormwater for the cities and CC, be included as voting LVVWAC members. He reported on the differences between the CCRFCD, as a stormwater agency, and the MS4s. He also stated that, arguably, all LVVWAC members share only the regulatory interest in the Wash and proposed that the committee remain a forum for all

watershed issues, thus the inclusion of the MS4s. He spoke to the funding formula and proposed adjusting the formula to account for the universal interest in the Wash more equitably. David showed slides with CCWRD's proposals to expand LVVWAC membership to include MS4s, reallocate funding to a 30/30/30/10 model (30% SNWA, 30% wastewater dischargers, 30% stormwater [CCRFCFCD & MS4s], 10% CC Wetlands Park) and adopt fiscal policy restricting expenditures to the Wash. Colby Pellegrino stated that the agenda was not noticed to include discussion on financial or fiscal issues and asked that those discussions be tabled at this time. David agreed with this request and stated that he had just wanted to briefly touch on the funding as it relates to the LTOP formula and allocation.

Zane Marshall asked to characterize how the MS4 permittees currently perform their business and coordinate compliance with stormwater, and if there are members on LVVWAC that have those permits besides CCRFCFCD. Steve stated that the Stormwater Quality Management Committee (SQMC) is made up of the five co-permittees (CCRFCFCD, CC, COH, CNLV and CLV). As the current Chair of the SQMC, he stated that the group meets quarterly and added that CCRFCFCD does not operate or maintain any facility within the MS4. The CCRFCFCD provides funding to each of the MS4 entities, provides oversight and helps coordinate permits to stay in compliance with the Clean Water Act. Randy stated that, for CC, the MS4 permit sits within the Public Works office. Tom Minwegen added that CC has a water quality division involved in these efforts. Zane clarified that Public Works falls under Randy's authority, to which Randy affirmed. Zane then clarified the point that CCRFCFCD is not the only entity on LVVWAC representing the MS4 permit and that, by authority, Randy represents at least a portion of that responsibility for CC. Randy stated that is correct, but added that as a member of the LVVWAC, he represents the CC Manager's office and the Wetlands Park and oversees the financial responsibility for the manager but has never focused on the MS4 side of the house. Tom Minwegen stated that he feels that is part of the confusion: what is the representation on LVVWAC? Randy stated that he and Tom feel that he represents the Wetlands Park, not CC Public Works or the MS4, and Tom added that he would like more clarity on what the membership of the committee should and could be as it relates to water quality.

Zane asked if including the individual that is responsible for the MS4 permit for each jurisdiction is duplicative of what is represented today or if it is value added. He inquired from each of the city representatives their roles on the committee. Zane added that as a representative of SNWA on the committee, his representation covers the entire organization. He also stated that the bylaws do not state that the representation is only for one unit within the member entity but that the representation is for that entire entity. Tom Brady added that he is a representative for CNLV, primarily water and wastewater but that he covers it all. He added that it is a valid conversation to understand what each member's purpose for representation on LVVWAC is. He also added that if membership changed, he would still be the representative for CNLV. Priscilla stated that as a member of LVVWAC, she represents COH but communicates with other city staff members as needed. Charles Trushel stated that for CLV, he represents wastewater and Public Works but will go to subject experts within his organization on varying matters, if needed.

Steve spoke to the question about dual representation, asking what the role of the LVVWAC is and how much the MS4 entities really impact the Wash to require their full participation. Tom Minwegen reiterated that the confusion is who really represents what interest on the committee and stated that the watershed covers 2,200 square miles of the valley. He stated that one of the

objectives of the committee is to protect the water quality of that watershed, and that since 2004, the MS4 permit has been under challenge and that this is an opportunity to expand the LVVWAC membership to include a presence of the MS4s. Steve clarified that there were NDEP audits with some issues, but changes have been made and trainings have occurred. He stated that there were no violations found in the last audit.

Zane asked for a point of clarification on Tom Minwegen's comments about the expansion of the role of LVVWAC into the tributaries and the MS4, saying that the LVVWAC's focus has been limited to the Wash. Tom Minwegen stated that is part of the confusion, because the committee claims to oversee the entire watershed. David stated that if the group does not view the committee as a true watershed advisory committee, then the conversation moves differently because the committee's focus is on the Wash. Ron asked if the conversation is about membership or the scope and purpose of the committee. Colby stated that having multiple voting representatives from one jurisdiction is not a good idea and that if the MS4 conversations need to be more prominent in this committee, then perhaps the entities involved need to evaluate who they have as part of LVVWAC and what umbrella they represent. Tom Minwegen said that he could accept Colby's statement but asked if LVVWAC is a watershed committee or not. He added that if it is, then it must include MS4 because of potential water quality issues.

Ron asked if the scope of the committee differs under the LTOP from what it was under the CIP, and if moving into LTOP warrants a change in who attends and represents the different entities on LVVWAC. Colby stated that we cannot have a discussion on purpose and scope as it is not listed as an item on the agenda. David suggested that maybe there is an administrative and clerical solution or a clarification in the bylaws that could explain that LVVWAC members can speak to all interests within the jurisdiction, whether wastewater or stormwater. Priscilla spoke to the comment that the negotiations for the MS4 permit do not fall under the purview of all members, and she asked if Tom Minwegen feels that those permits need to be done under the purview of this committee or reported from an outside party. Tom Minwegen stated that foundational documents define this is a watershed advisory committee, but that it does not incorporate all water quality because it does not include MS4.

Randy asked Tom Minwegen if funding for the selenium study would have gone through local boards as its own funding request and not through LVVWAC, would the committee be having this discussion, as he feels that all groups are represented. Tom Minwegen said his frustration started with the meeting that transitioned to the LTOP, which he feels is a big change from before. Steve stated that with the transition from the CIP to the LTOP after all the weirs were completed, CCRFCD felt like it needed a bigger role and that is why it increased its funding contribution. He stated that he does not understand the reason for adding MS4s to the committee and agrees that each entity should have one voice on the committee and may need to re-evaluate who participates on LVVWAC.

Ron posed the question: what is the reason for having additional membership, and alternatively, are we losing something by not adding members? Priscilla stated she too agrees that one voice, one vote from each organization is best and that the SQMC and CCRFCD do a great job of keeping LVVWAC informed of any permitting or renewal issues. She commented that perhaps the issue at hand can be solved by clarifying some of the language versus changing how LVVWAC operates. She also stated that she does not see detrimental impacts if the MS4s are not included in the committee.

Steve stated that the selenium study that was conducted directly impacted the Wash. The focus of the study was to analyze the Wash. He stated that selenium has been a concern for years and CCRFCD recognized it early and set up MS4 to minimize how much selenium was getting into the water. Tom Minwegen reiterated his comment from earlier that if LVVWAC is truly a watershed advisory committee, it cannot avoid MS4 inclusion. Zane stated that perhaps Tom's comment and question could be accomplished by clarifying the role of the committee, by expanding the agenda items that are discussed, including more coordination with the MS4 group/SQMC, and if there are things that need to be funded, the committee can build budgets around projects related to the MS4, if needed. He stated that, personally, adding members does not add value, but clarifying the responsibility for the committee members is what needs to happen. Keiba stated that the LVVWAC already receives annual updates from the SQMC, as well as the Wetlands Park, regional water quality and the wastewater dischargers.

David stated that he does not want the group to forget about the threshold issue, assuming the group still wants to be a comprehensive watershed advisory committee. Steve spoke from the SQMC point-of-view and expressed concern that if the group brings SQMC into this committee, would LVVWAC then provide an oversight role over SQMC, stating that he would argue against it as the latter group functions well already. Zane stated that as an advisory committee, if LVVWAC recognizes that the work by SQMC is being done, then LVVWAC's work on the subject is done. Tom Brady asked if there is a perception that LVVWAC is lacking in addressing issues that arise that affect the Wash. He stated that if issues arise, the LVVWAC is a solution-oriented group capable of solving problems.

Colby asked if a vote about membership could be called so the group could move on to spend some time on what should be included on the next meeting's agenda. Tom Minwegen stated that the group should continue the discussion and not take a vote today until the group fully understands who it is and what it represents. Priscilla stated that it had been a fair discussion and the majority of members feel like there is representation from wastewater and stormwater, and as Chair, she is comfortable taking a vote today. She said the group would have the conversation about what focus or changes may need to occur during the next meeting and identify whether or not that potentially changes how LVVWAC operates.

Randy made a motion to keep LVVWAC membership as it currently stands, with no change. There were seven votes in favor and one vote, Tom Minwegen, CCWRD, in opposition.

**8. Set Next Meeting Date and Propose Items for the Next Meeting's Agenda**

The next meeting is scheduled for December 8, 2022, at 1:00 p.m. Priscilla stated that an item for discussion that defines LVVWAC's role, purpose and scope should be included in the next meeting. Colby Pellegrino recommended an item be included to evaluate the current LVVWAC bylaws.

**9. Public Comment**

There were no comments from the public. Meeting adjourned.



# Las Vegas Valley Watershed Advisory Committee



## UPDATE Clark County Wetlands Park

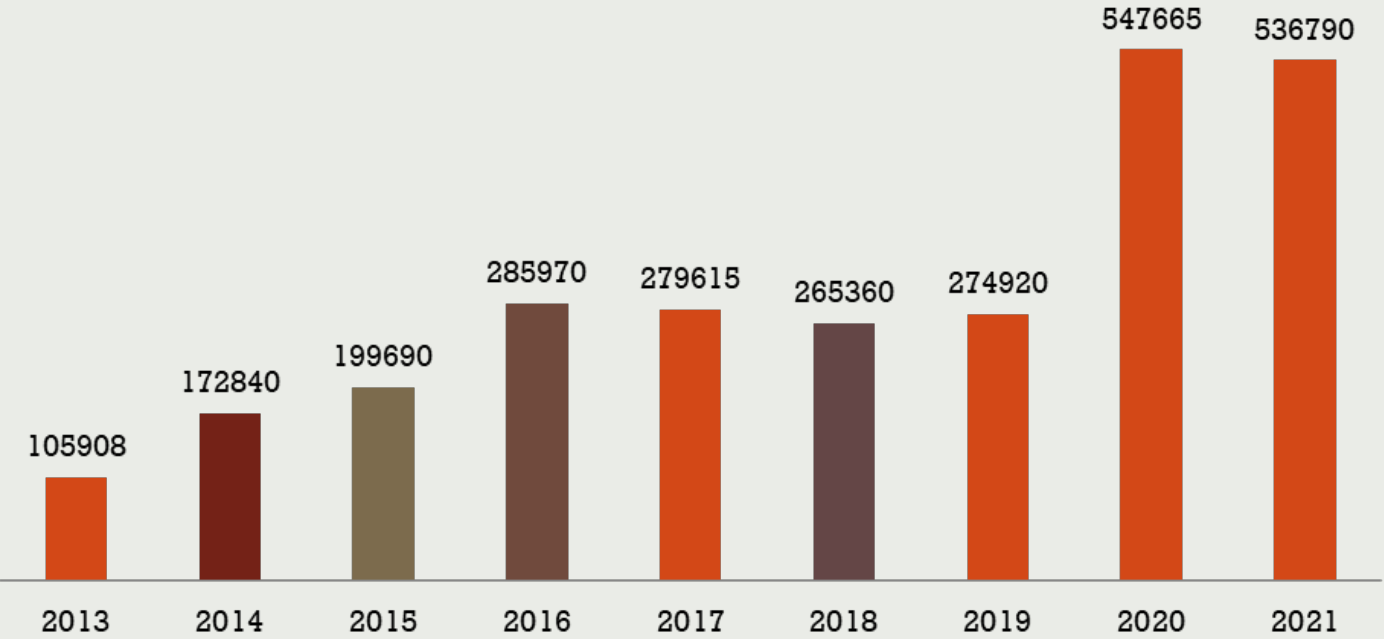
Elizabeth Bickmore  
Senior Program Administrator

January 10, 2023

WETLANDS PARK, preserving and enhancing natural and cultural resources and providing educational, recreational, and research opportunities for the public.



# Estimated Park Visitation



## 2022

GROUNDS:	461,030
EXHIBIT GALLERY:	17,511
PROGRAMS & EVENTS:	10,392

# 2022 Events & Programs Attendance 27,000+

- NFL GREEN
- Astronomy in the Park
- Story Maze
- Migratory Bird Day
- BioBlitz
- Explorer Days
- Haunt the Wetlands
- Exhibit Gallery





# Events 2023

## NFL Green

- Wednesday, February 1, 2023

## Wetlands Art Day

- Saturday, March 18, 2023, 10 am – 2 pm

## BioBlast

- Saturday, April 29, 2023, 9 am – 1 pm

## Discovery Day

- Saturday, July 8, 2023, 9 am – 12 pm

## Haunt the Wetlands

- Friday, October 27, 2023, 4 pm – 8 pm

# Nature Store

- ▶ Grand Opening: April 10, 2019  
*Closed: March 16, 2020 – April 17, 2021 (COVID-19)*  
*Closed: December 30, 2021 – January 13, 2022 (fire)*
- ▶ Annual Sales:
  - ▶ 2019: \$19,419.10
  - ▶ 2020: \$ 8,443.40
  - ▶ 2021: \$20,076.45
  - ▶ 2022: \$40,453.72
- ▶ Total Sales all Years of Operation: \$87,576.67





# Nature Store - Top Sales

## Top 5 Highest Revenue :

1.	Butterfly Magnet	Qty: 686	Sales Total: \$2,049.00
2.	WP Pocket Naturalist	Qty: 184	Sales Total: \$1,471.00
3.	Outback Hat Cattail	Qty: 84	Sales Total: \$1,321.25
4.	PamPeana Night Light	Qty: 58	Sales Total: \$1,321.00
5.	Butterfly Clips	Qty: 438	Sales Total: 1,311.00

## Top 5 Highest Selling :

1.	Good Luck Minis	Qty: 1108	Sales Total: \$813.50
2.	WP Postcard	Qty: 1051	Sales Total: \$667.75
3.	Butterfly Magnet	Qty: 686	Sales Total: \$2,049.00
4.	Butterfly Clips	Qty: 438	Sales Total: \$1,311.00
5.	Fruit Snacks	Qty: 252	Sales Total: \$369.25



# Facility Rentals

Calendar Year 2022

Requests:	56
Completed Reservations:	32
Total Rooms/Days of Rentals:	63 Uses

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**TOTAL VALUE \$11,247.50**

Paid Rentals:

20 Reservations; 39 Uses (rooms/days); Revenue: \$7,272.50

Comped Rentals:

12 Reservations; 24 Uses (rooms/days); Value: \$ 3,975.00





# Wetlands Park Navigator

New Mobile App!

- Tours
  - Exhibit translations in Spanish and Tagalog
  - Audio Tour of Exhibit Gallery
- Maps
- Trails information
- Links

Funded by Wetlands Park Friends through a grant from REI



# Field Trips

- **Guided Field Trips**

- 2001-2022 – 54,838 students
- Average 2,700 students per year

- **Self-Guided Field Trips**

- **Virtual Field Trips**

- 538 classes
- 13,167 students

- **Fee-Based Private Field Trips**  
are offered to private schools



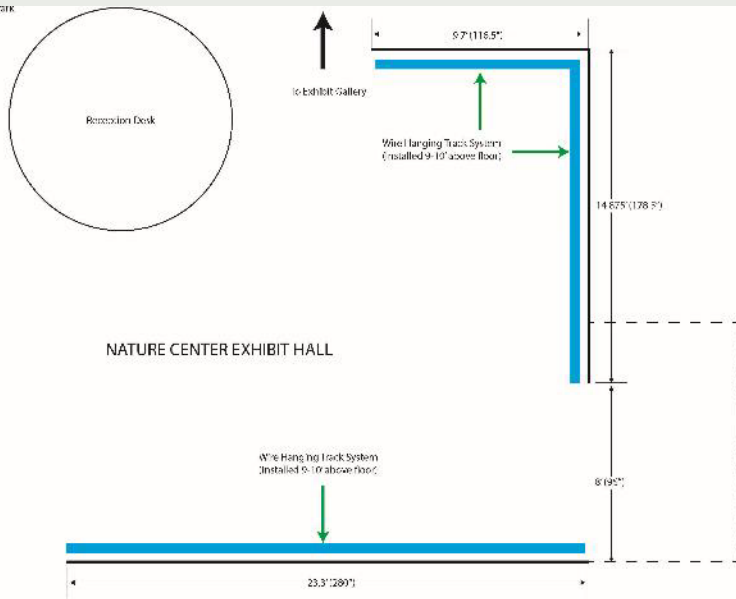


# Stewardship @ Wetlands Park

- Since 2014
  - Over 5,300 public volunteers
  - Over 12,000 volunteer hours
- Average Annual Participation
  - 600 volunteers
  - 40 projects



- Stewardship Programs
  - **Wetlands: Hands On! (WHO)**
  - **Stewardship Groups**
  - Wetlands Watchers
  - Eager Beavers
- Groups/Partners in 2022 included:
  - Wetlands Park Friends
  - MGM
  - Frontier Airlines
  - Shine City
  - UNLV
  - Youth Advocacy Program



# WP Art Destination

NEW ART Gallery

Gallery Exhibitions

3<sup>rd</sup> Temporary Art Installation - 2023

Guest Artist Workshops

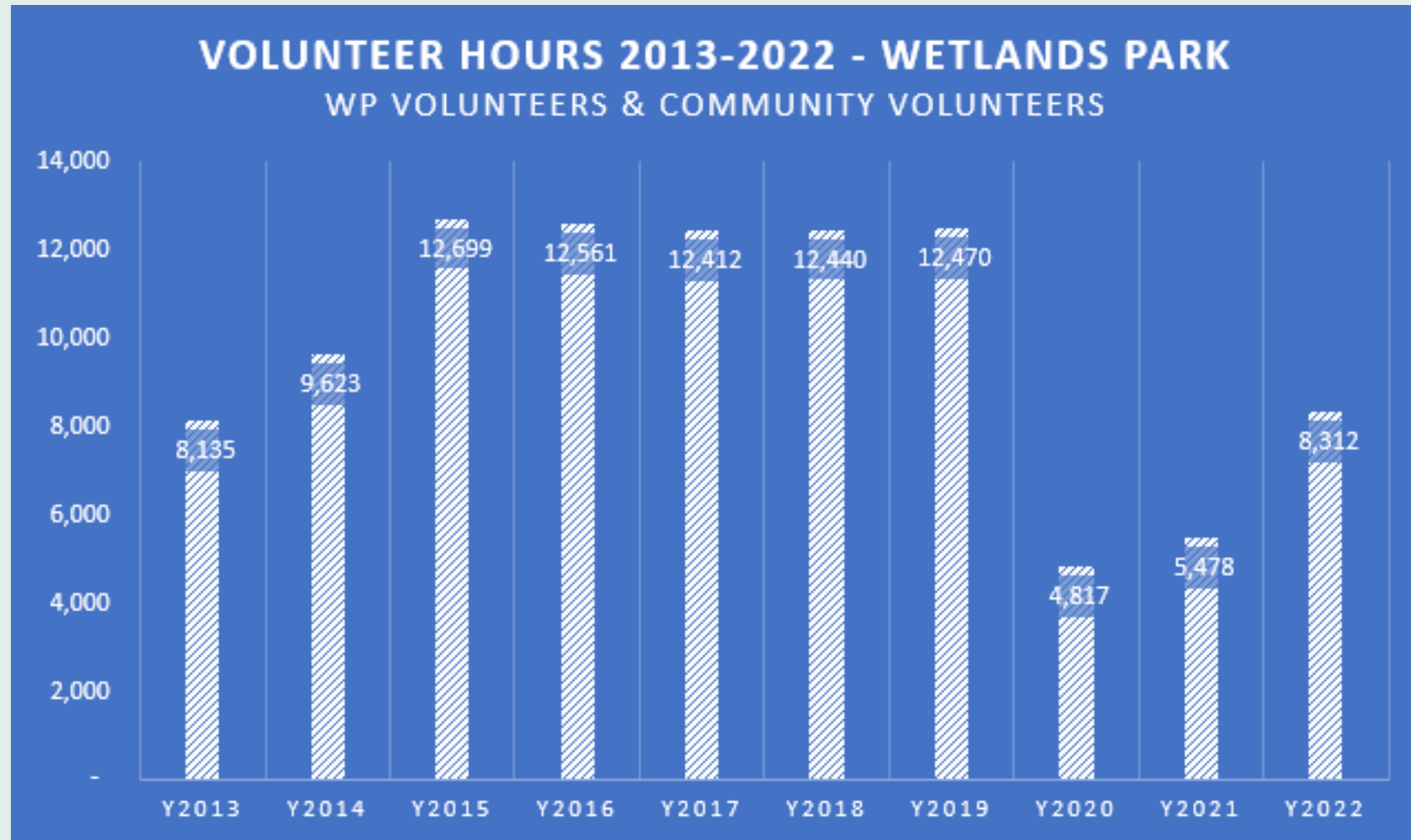
Artist in Residence



# ➡ Value of Volunteers 2022 - \$221,915

➡ Based on 2021

@ \$26.18/hour [independentsector.org](http://independentsector.org)





# Development Coordination

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## CCWRD

- Forced Main Sewer Line
- Fencing

## Hollywood Extension

- Public Works

## Cadence Master Planned Community

- 2 Outflow channels
- Multiple drainages



# Development Coordination Cont.

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## Nevada Environmental Response Trust

- Ongoing

## CAB for Wildlife -Fishing Proposal

- Completed

## Transwest Power Corridor

- Agreement Reached

## **Special Use Permits - 2020**

- Access, research
  - 160
- Agencies
  - 25

## Park Police & Community Support

- Contact/Presence



# Endangered Species Coordination

## Las Vegas Bearpoppy

- USFWS Request for Information

## Yuma Ridgway's Rail

- CCMSHCP Minor Permit Amendment
- Maintenance
- Fuel reductions



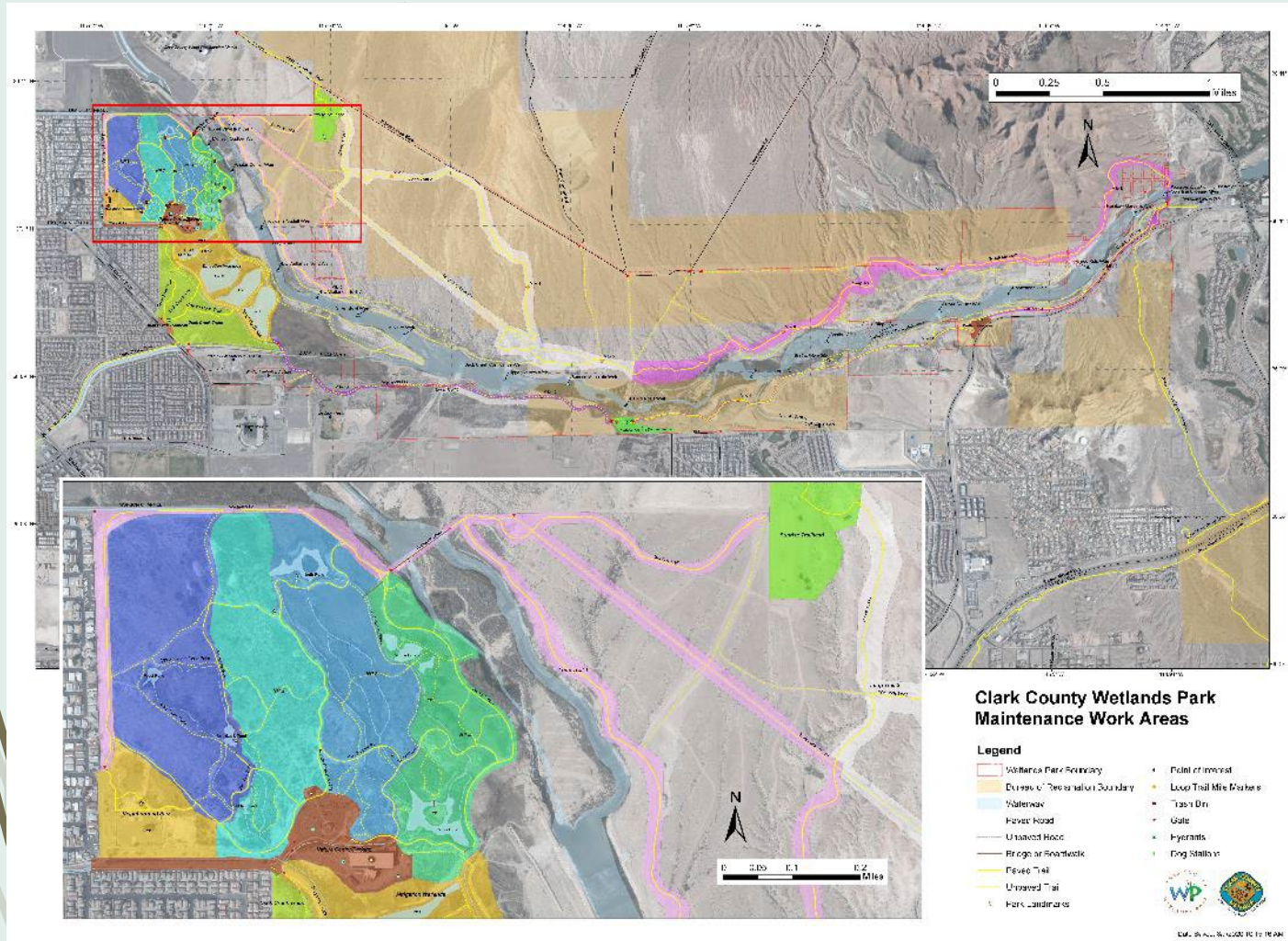
# Clark County Wetlands Park Master Plan, 1995



## Park Service Plans

- Maintenance
- Barriers
- Interpretation

# Maintenance Plan

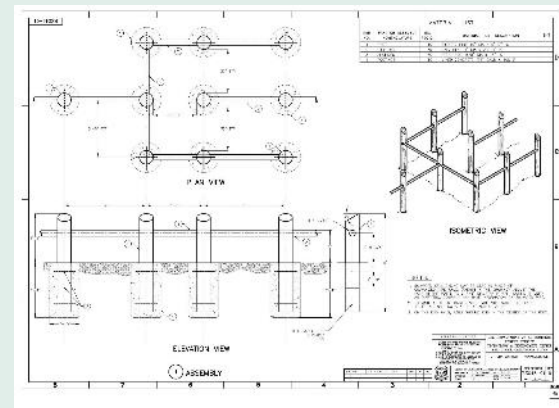
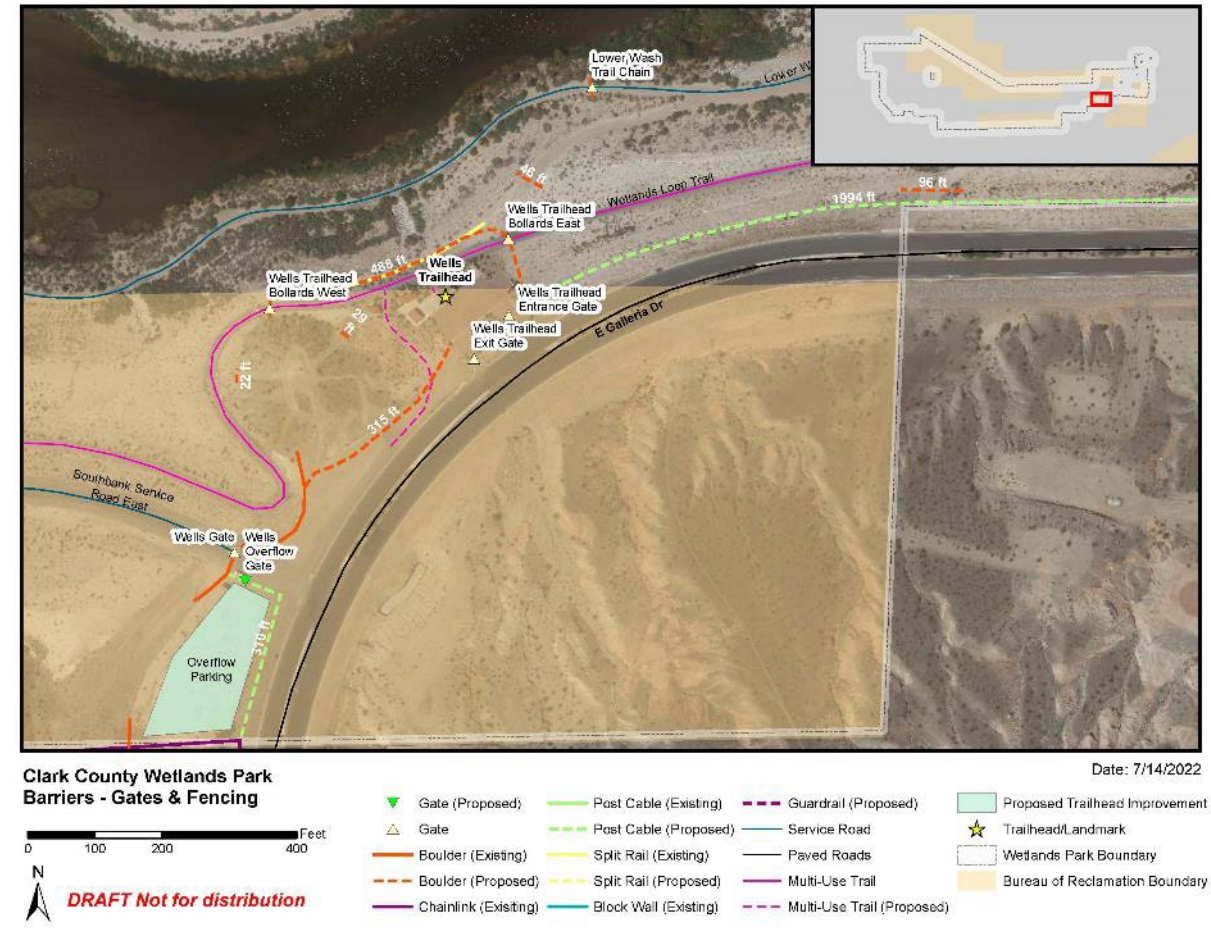


- Maintenance Zones
  - Trailheads
  - Nature Preserve & Mitigation Wetlands
  - Multi-Use Trail Zones
- Scope of Work
  - Landscaped Areas
    - Parking, Trailheads, Gardens
  - Restoration and Enhancement
    - Wildlife habitat
    - Riparian ecosystems
    - Wildfire response and mitigation
  - Waterways Maintenance
  - Trail Maintenance



# Barriers Plan

- Fencing barriers
  - Boulder fencing
  - Post and cable
  - Split-rail / wood post
  - Guardrails
- Gates & Bollards
  - Galleria Drive Entrances
  - Hollywood Boulevard
  - New Trailheads



# Interpretive Plan



- **Interpretation:** a purposeful approach to communication that facilitates meaningful, relevant, and inclusive experiences that deepen understanding, broaden perspectives, and inspire engagement with the world around us.

- **Audience Segments**

- **Visitor Experience**

- **Interpretive Themes**

- Wetlands Park is a place where all manner of interconnected relationships exist between people, living things, and the environment we all share.
- Habitat and Wildlife
- Water and Life
- Ecosystems
- History and Archaeology
- Geology and Soils
- Human Ingenuity

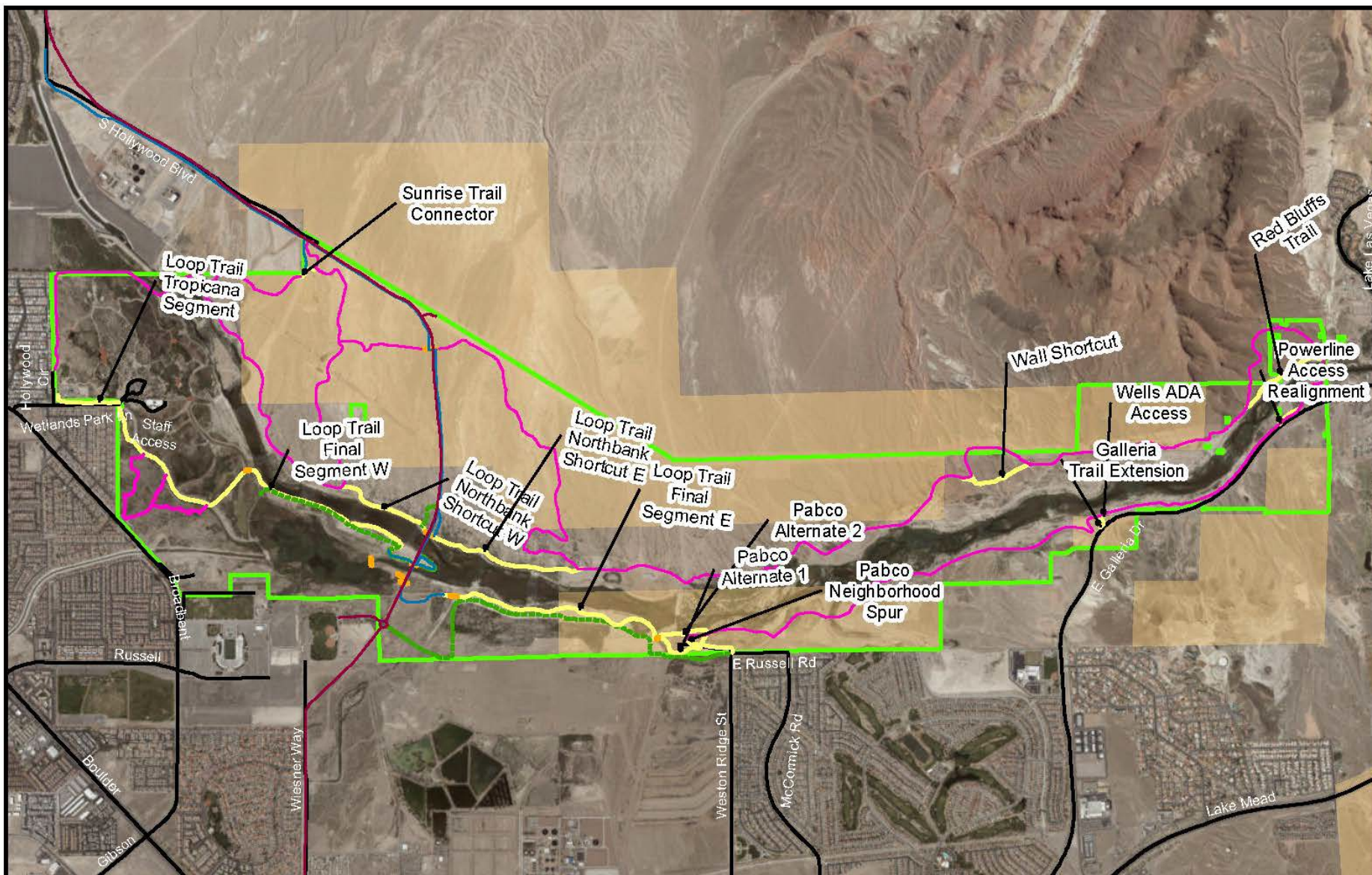
# Loop Trail Completion Project



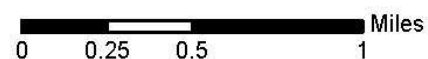
## WP Loop Trail Completion Plans

- AB 84 Conserve Nevada
  - \$10M, proceeds from bond sales
- Phase
  - \$2M
  - Design approximately 4.9 miles (paved and service road)
  - Pave initial segment and associated service road
- Future Phases
  - \$6M
  - Pave remaining miles and associated service road





# **Clark County Wetlands Park Proposed Paved Multi-Use Trail Improvements MAP A**



DRAFT. Not for distribution. Date: 8/11/2022

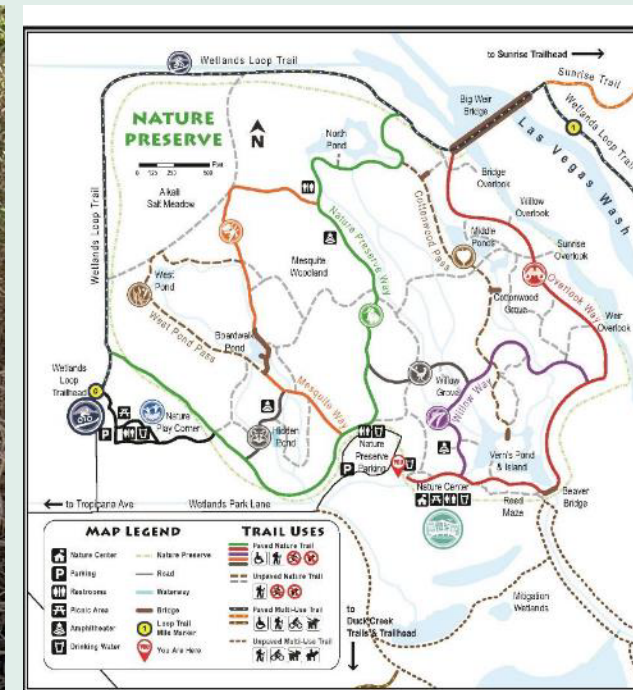
- Proposed Hollywood Extension
- Proposed Hollywood Ext Trail
- Proposed Trail Crossing
- Current Paved Trail Alignment
- Proposed Paved Trail Alignment
- Proposed Service Road
- Paved Road
- Bridge
- WP Boundary
- BOR Boundary





# Nature Play Corner & Nature Preserve Signage

- Nature Play Corner
  - Grand Opening
- Nature Preserve
  - Wayfinding
  - Interpretive Waysides
  - Orientation Kiosks
  - NP Icon/color coded





# Capital projects wish list

- Fencing & Barrier Project
- Signage Project
  - Interpretive
  - Wayfinding
  - Safety
- Convenience Rest Areas
- Trailheads
  - Wetlands Loop Picnic area
  - New Trailhead event area
  - Enhancements





# QUESTIONS

702-455-8131

[bickmore@clarkcountynv.gov](mailto:bickmore@clarkcountynv.gov)

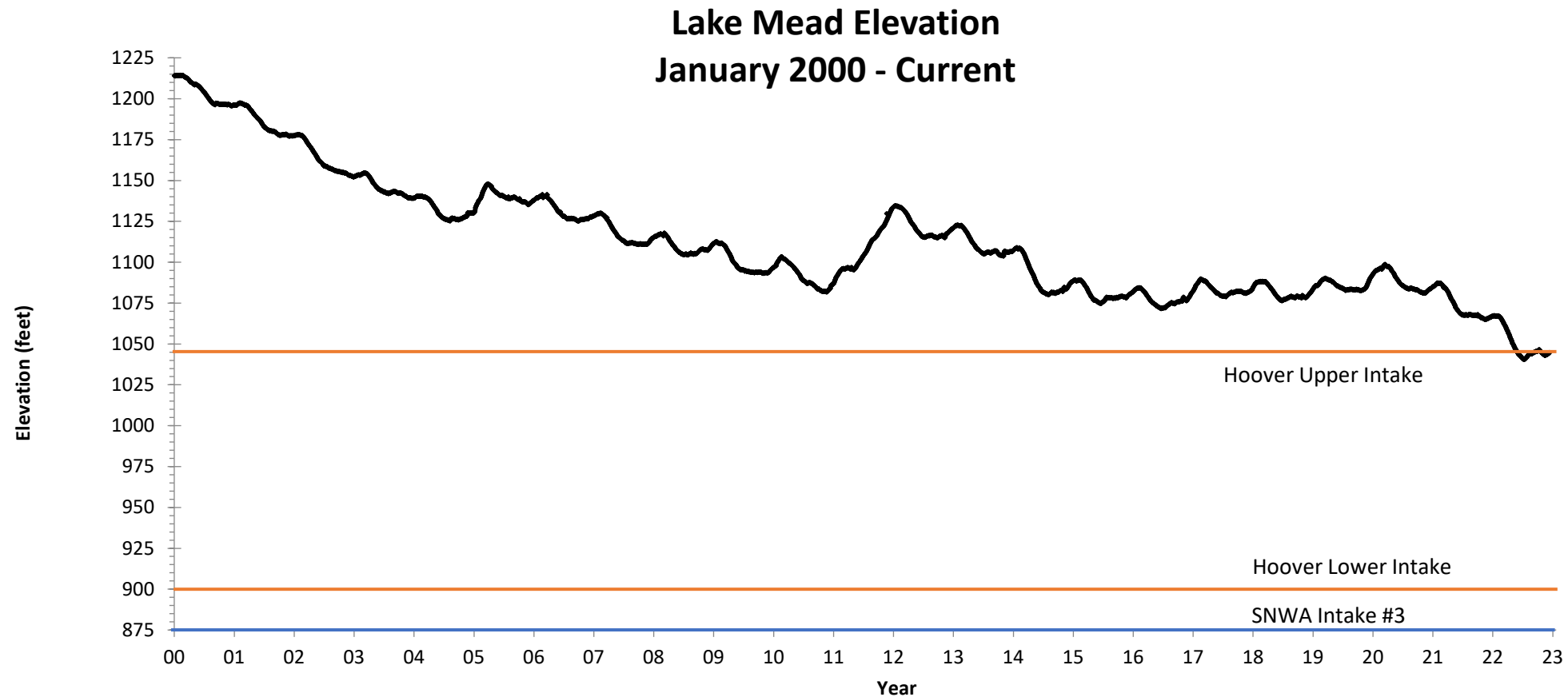
# Regional Water Quality Update

## January 10, 2023

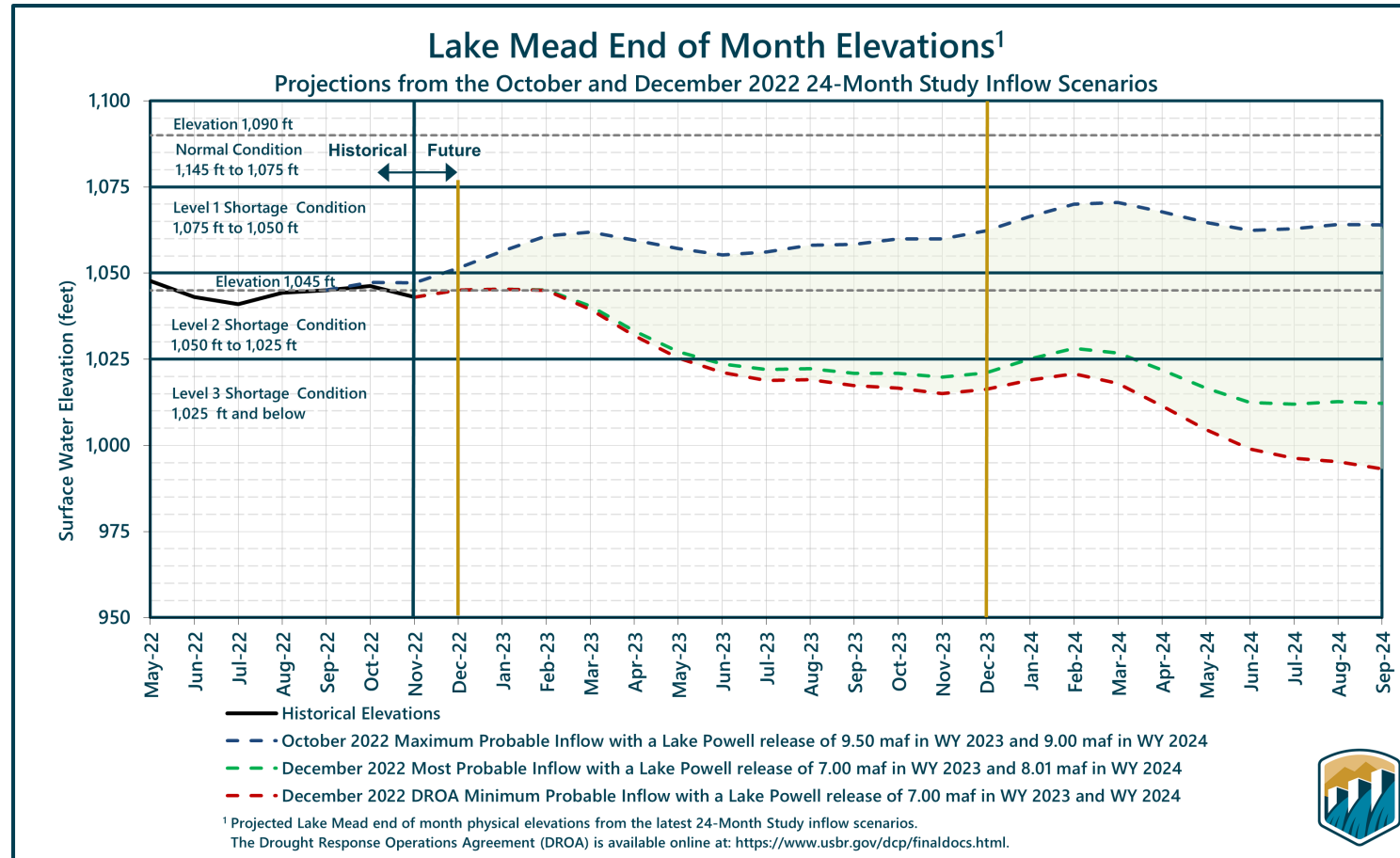
Todd Tietjen, Ph.D.  
Regional Water Quality Manager  
Southern Nevada Water Authority  
[Todd.Tietjen@snwa.com](mailto:Todd.Tietjen@snwa.com)



# Lake Surface Elevation

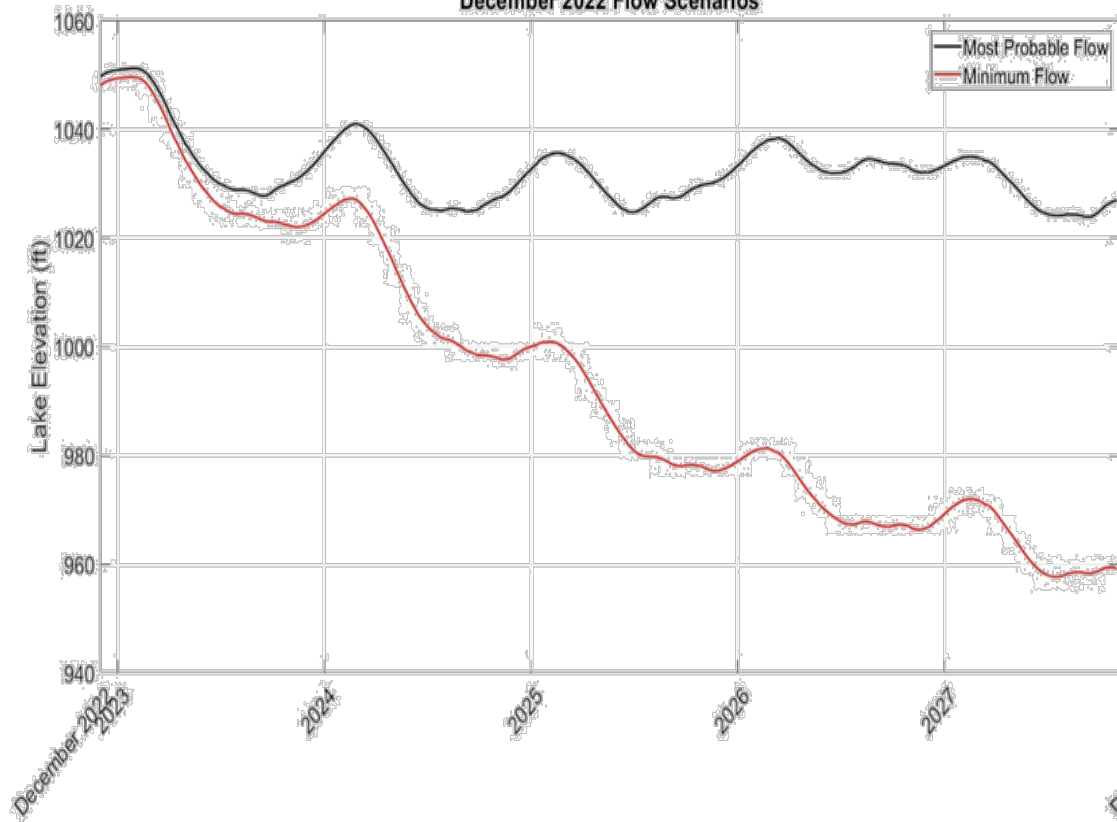


# 24 Month Study Predictions

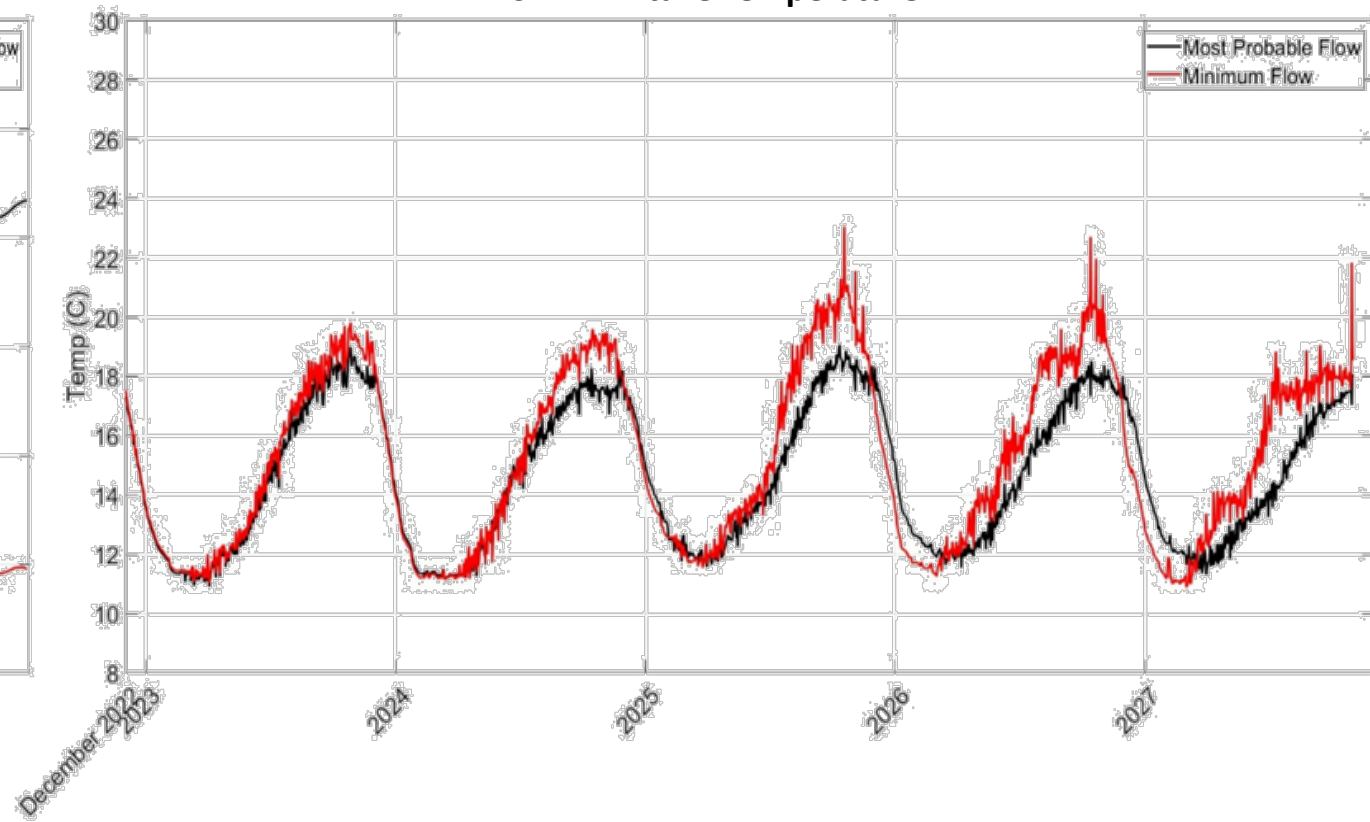


# Longer Term Projections

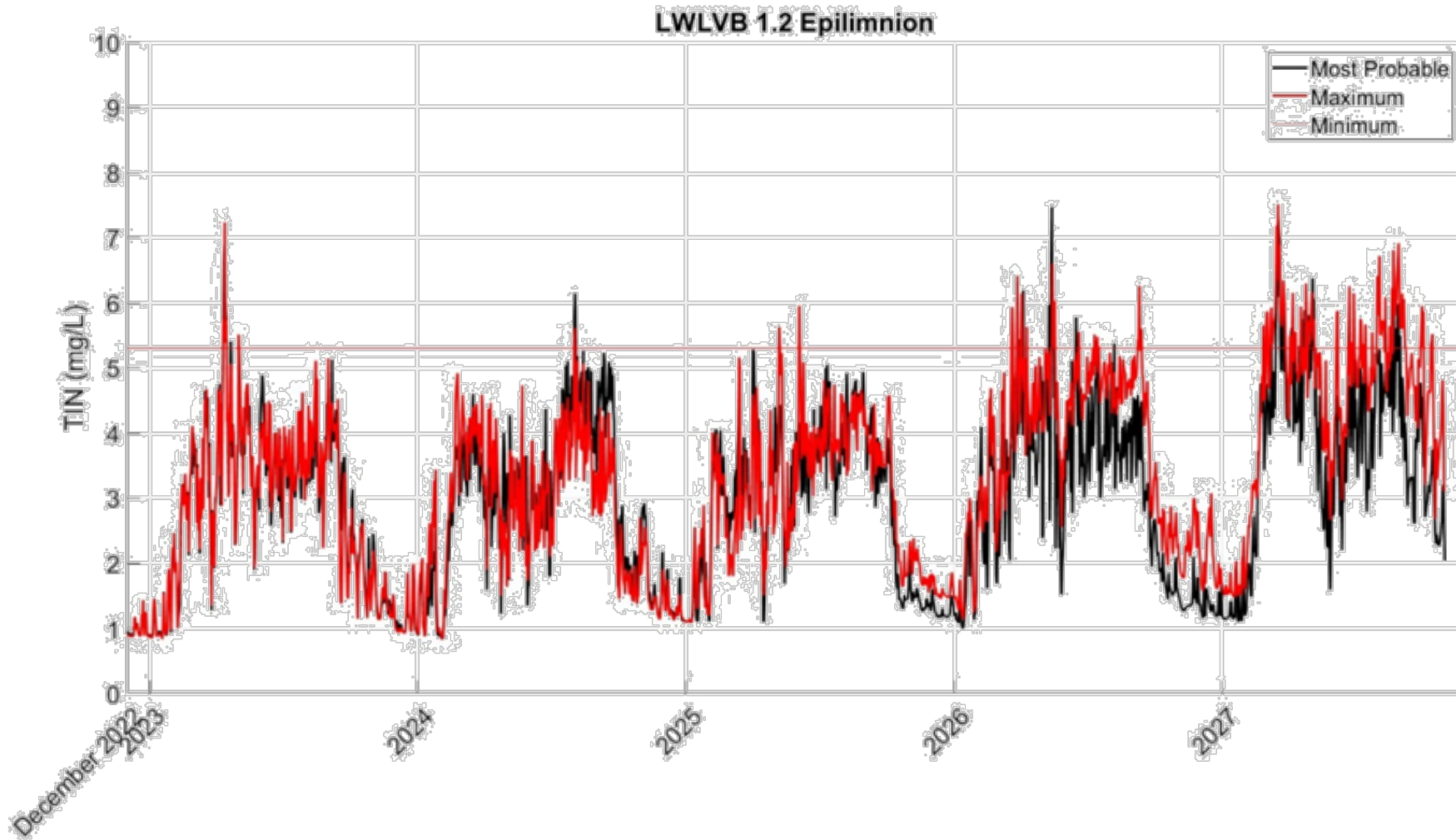
December 2022 Flow Scenarios



SNWA Intake Temperature



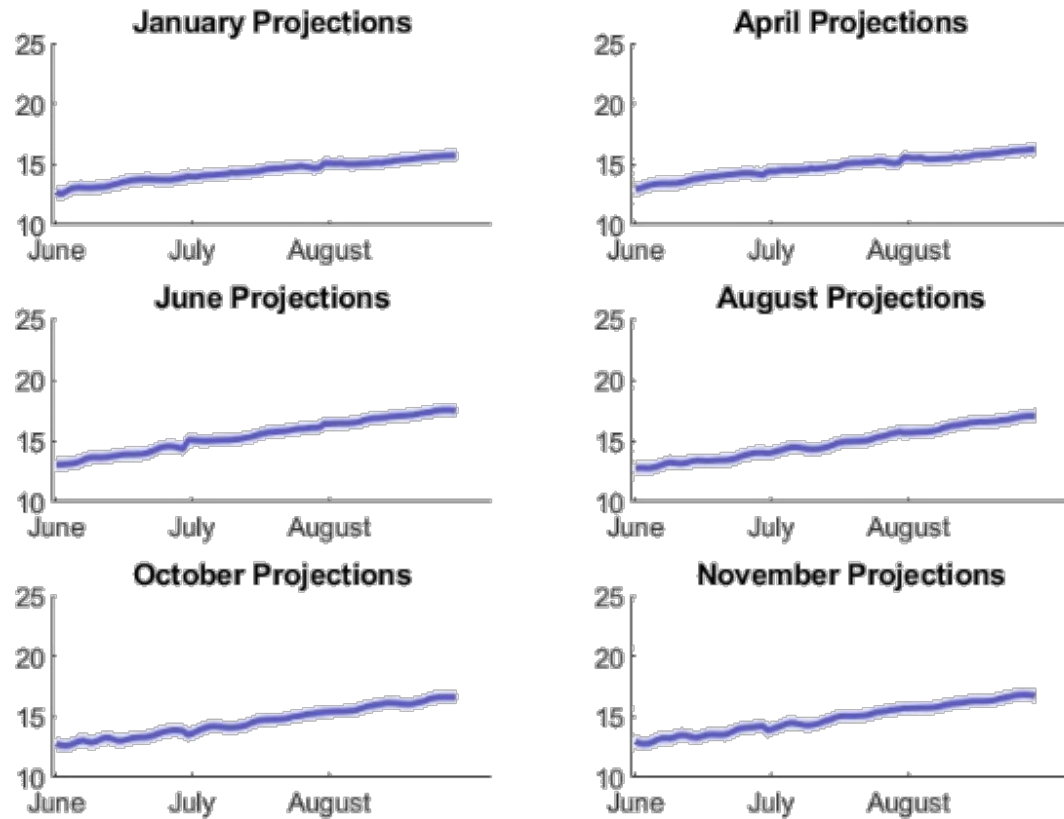
# Longer Term Projections



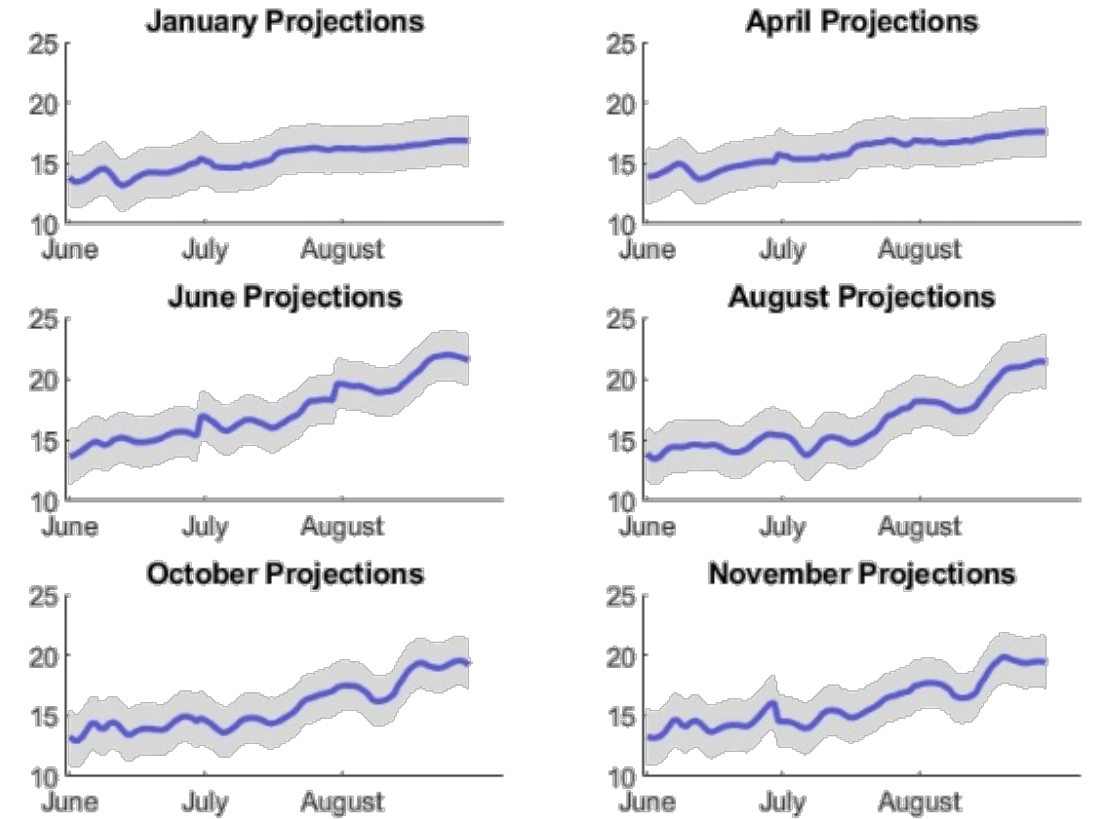
RMHQ: 95% of TIN < 5.3 mg/L

# Uncertainty Quantification

Projected Intake Water Temperature

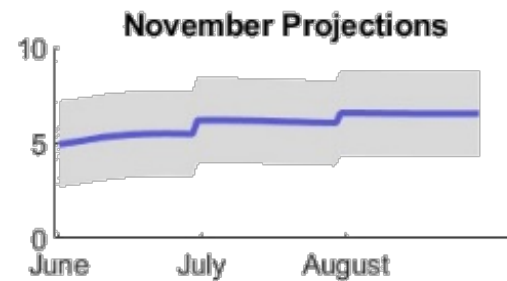
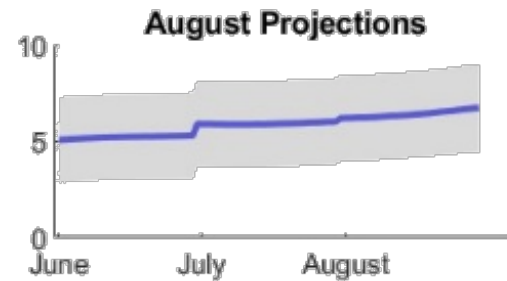
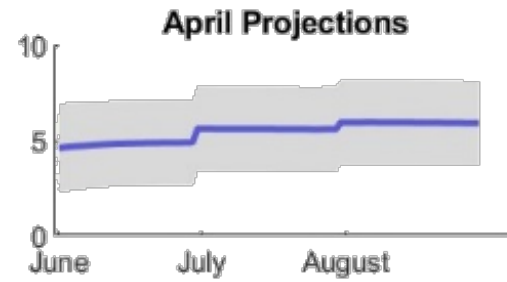
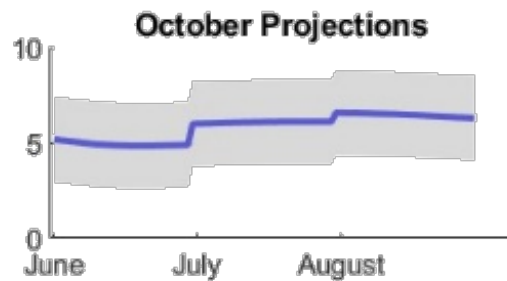
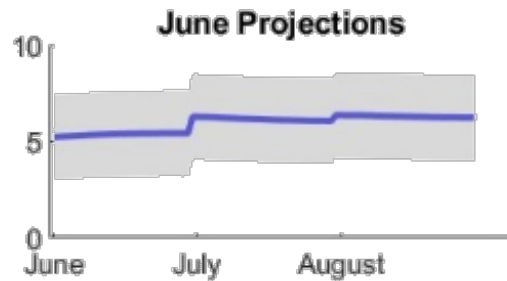
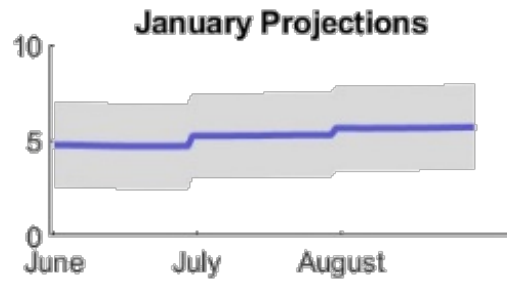


Projected Hoover Dam Lower Outlet Water Temperature

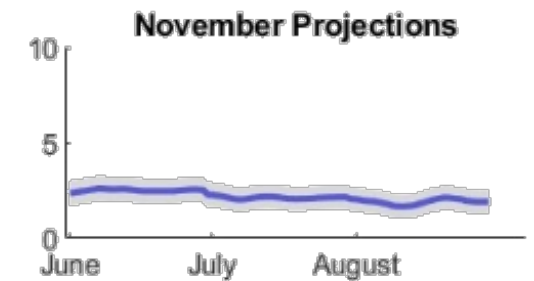
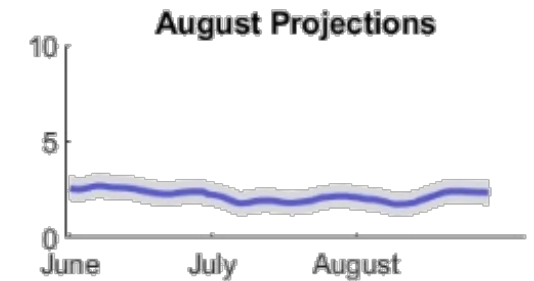
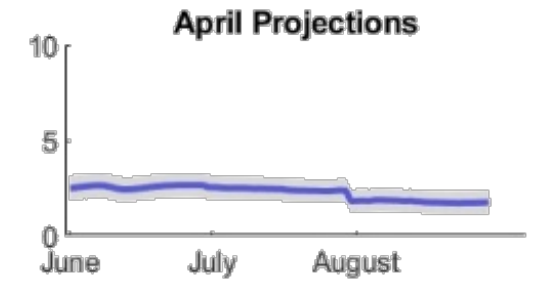
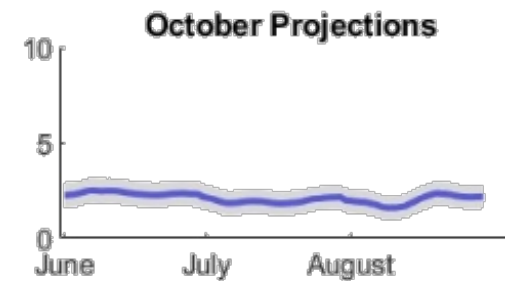
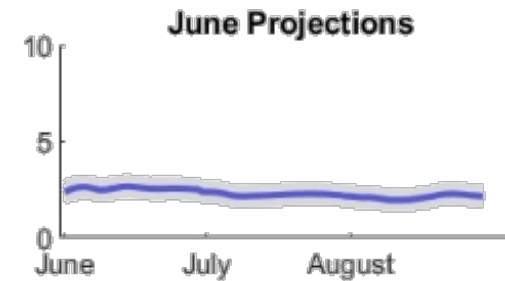
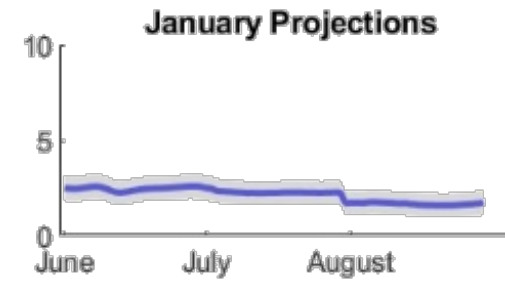


# Uncertainty Quantification

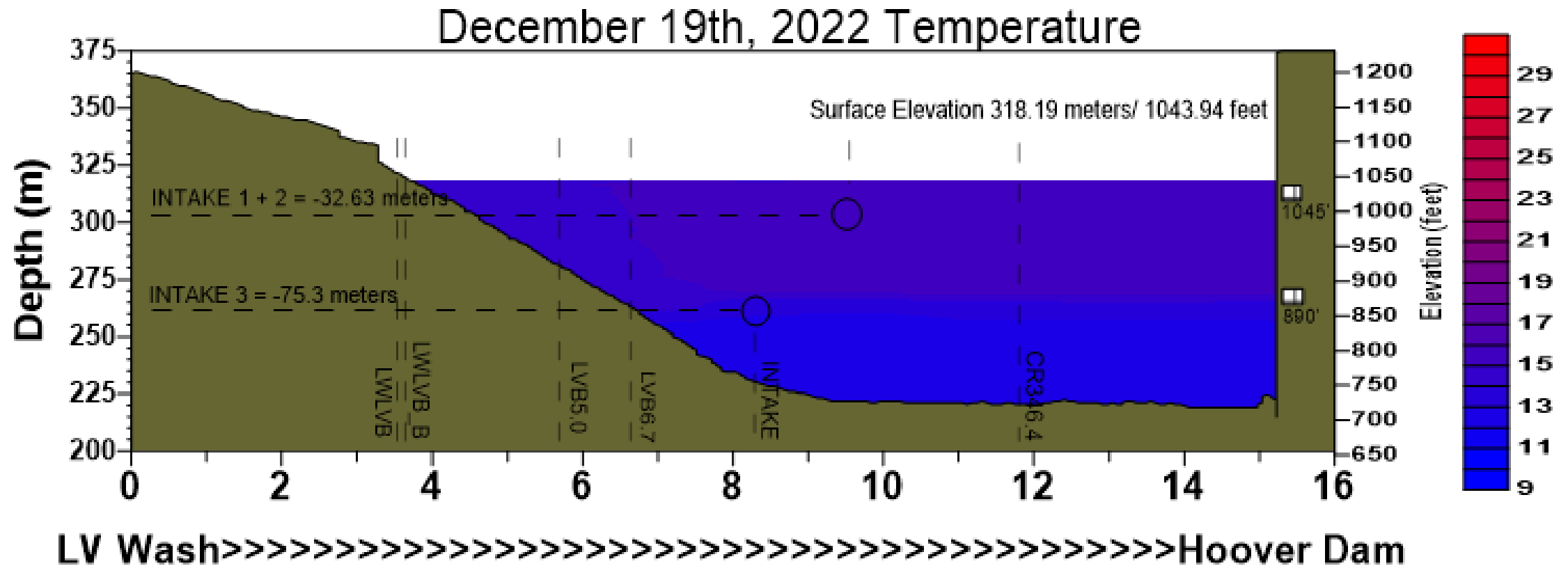
Projected Intake RWC



Projected Hoover Dam Lower Outlet RWC

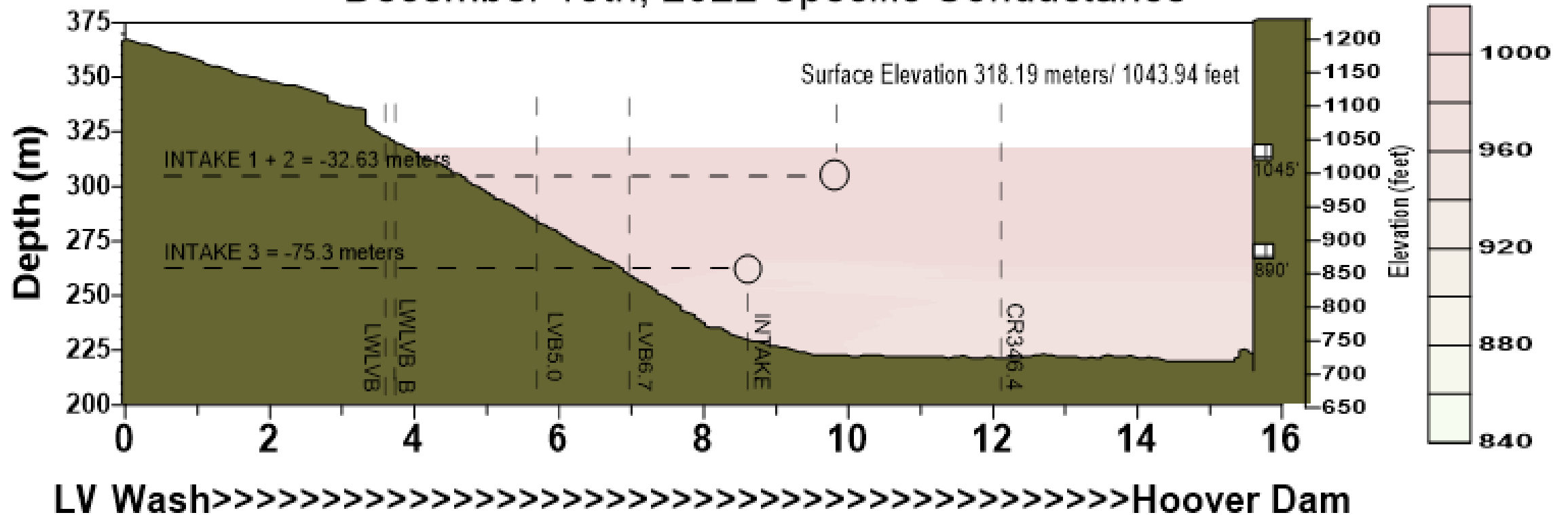


# Lake Mead Temperature



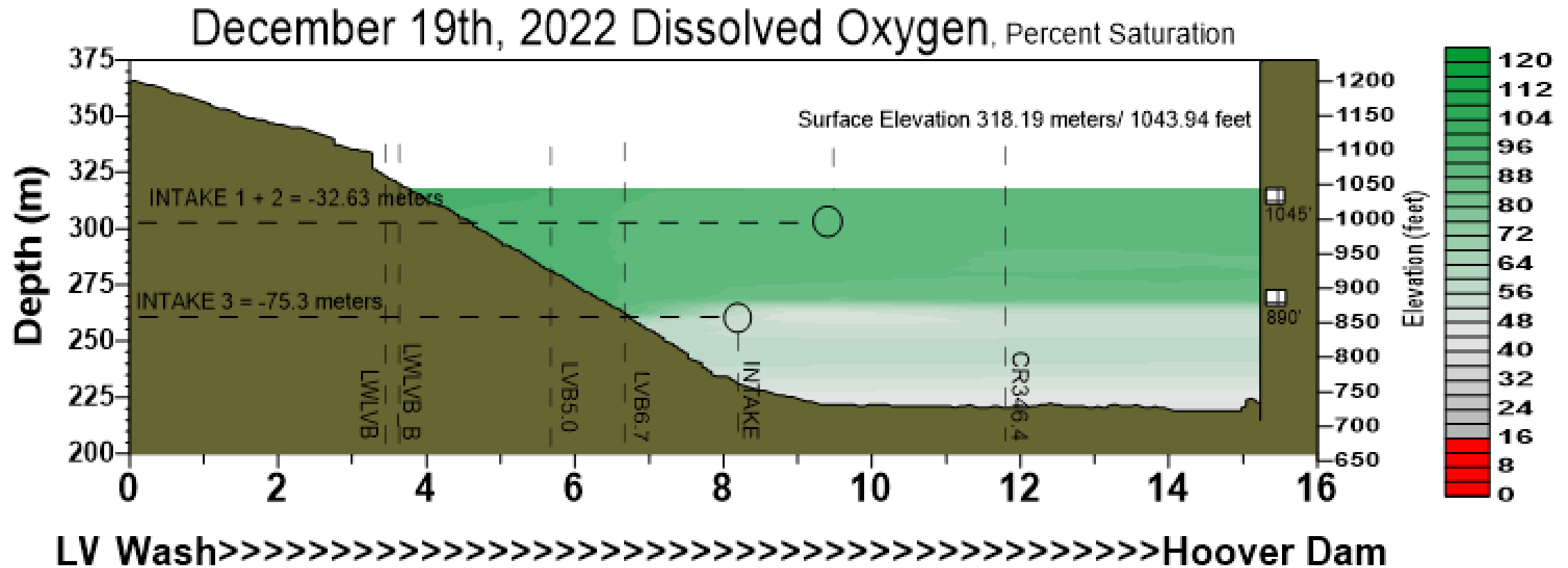
# Lake Mead Conductance

## December 19th, 2022 Specific Conductance

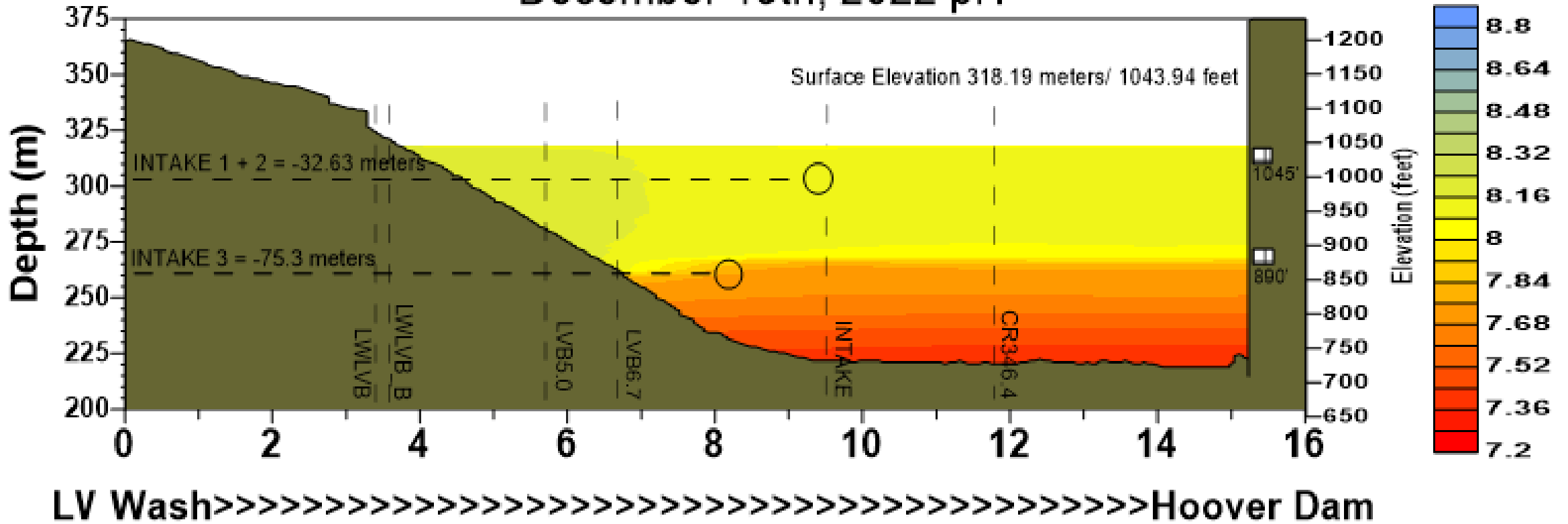




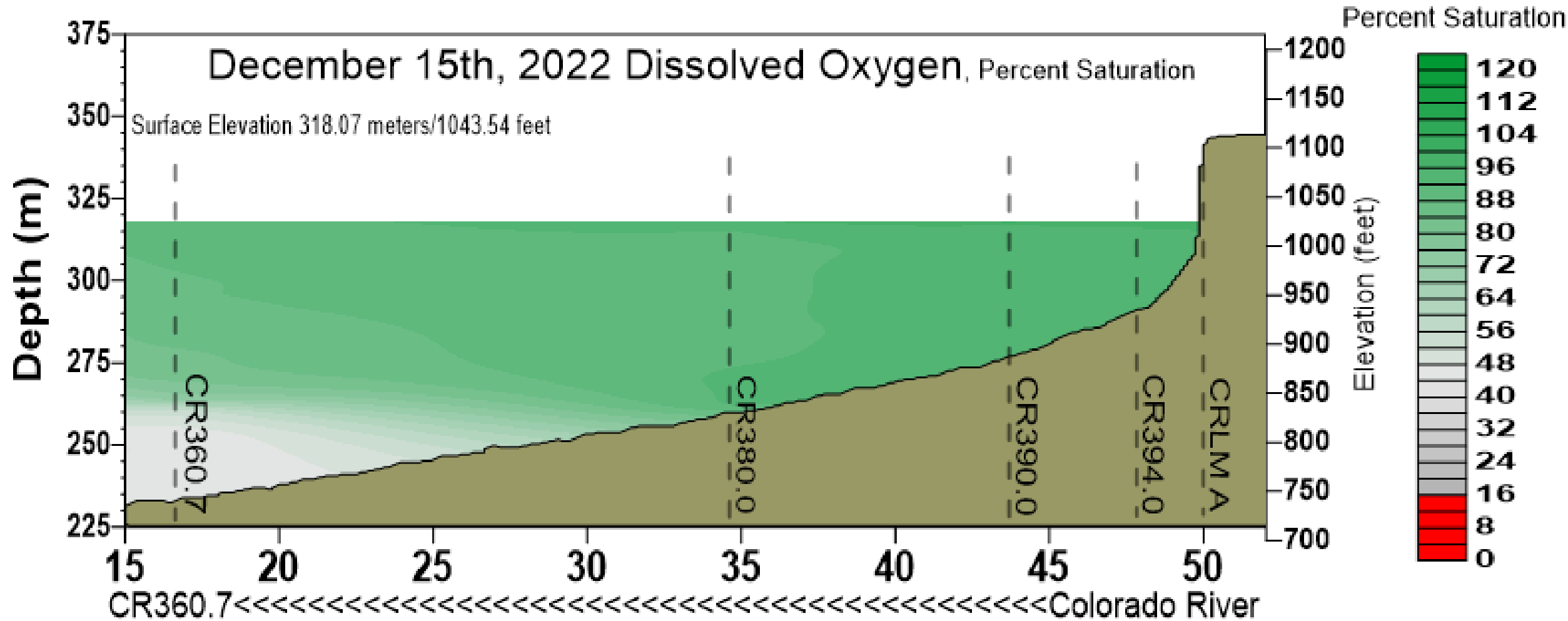
# Lake Mead Dissolved Oxygen



# Lake Mead pH



# Lake Mead: Colorado Inflow



# Algal Toxins

- Frequent detections, low concentration in Lake Mead
  - Continued into the winter
- Fairly “consistent” detections in Lake Mohave
  - Most low concentrations
- Laughlin Raw Water
  - Low to intermediate detections through the winter
  - Higher and more consistent than Lake Mohave
  - Not detected in any finished water samples
- This is an emerging problem that will need to be monitored



# Forthcoming

- SNWA and CoLV will be increasing chlorophyll and phosphorus monitoring in Las Vegas Bay until March to ensure ongoing plant maintenance work does not impact lake conditions significantly.
- SNWA working to develop a plan to assess oxygen depletion in the Colorado River Arm of the lake given the likely increased temperature of Lake Powell releases this year.

# Questions?

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